

## DETAILED ACTION

### *Allowable Subject Matter*

**NOTE:** Claims have been renumbered based on dependency relative to cancelled claims but maintain the same order.

1. Claims 1-9, 11-18, 20-22, 26-37 allowed.
2. Claims 10, 19, and 23-25 have been cancelled.
3. The following is an examiner's statement of reasons for allowance:

Independent claims 1, 17, and 18 contain subject matter that is understood to not be well known in the art. Additionally, various patent and non-patent literature searches (IEEE, ACM, etc.) have been conducted as well as interference searches in overlapping fields of study, particularly music and musical instruments.

Re claims 1 and 17, the closest prior art US 6185527 (Petkovic) and USPGPUB 20040073554 A1 (Cooper) do not teach a "heuristic module comprising a flatness component in order to determine a suitable segment of audio for the thumbnail, the flatness component employs a number that is added to spectral magnitudes for each frequency component, to mitigate numerical problems when determining logs". Additionally, there was no motivation to combine prior art USPGPUB 20040064209 A1 (Zhang). Though the cited prior art discusses audio thumbnails, temporal energy, and threshold level comparison, the prior art does teach or suggest a motivation to combine to teach "a flatness component in order to determine a suitable segment of audio for the thumbnail, the flatness component employs a number that is added to spectral

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magnitudes for each frequency component, to mitigate numerical problems when determining logs".

Re claim 18, the closest prior art US 6185527 (Petkovic), USPGPUB 20040073554 A1 (Cooper), and USPGPUB 20030021472 (Nichogi) do not teach "clustering fingerprints" and the equation of claim 18 relative to a normalized song. Though, Nichogi teaches a similar Euclidean type equation used for determining clustering distances, Nichogi does not teach clustering relative to a normalized song composed of thumbnails (i.e. clusters containing adjacent fingerprints). Additionally, since image analysis relative to the distance of clusters (color in a radial distribution) is taught by Nichogi, the equation itself is not considered to be functionally equivalent and equally effective as the equation in claim 18 and therefore a motivation to combine does not exist.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Colucci whose telephone number is (571)-270-1847. The examiner can normally be reached on 9:30 am - 6:00 pm, Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571)-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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